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UPDATED ANALYSIS OF THE PRESIDENT'S APRIL 5, 1979 CRUDE OIL PRICING PLAN

PREPARED FOR THE USE OF THE

SUBCOMMITTEE ON ENERGY AND POWER

COMMITTEE ON

INTERSTATE AND FOREIGN COMMERCE

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UPDATED
ANALYSIS OF THE PRESIDENT'S APRIL 5, 1979 CRUDE OIL PRICING PLAN

INTRODUCTION

On April 5, 1979 the President announced his intention to decontrol crude oil prices over the next several years and to submit to the Congress a proposal for a crude oil windfall profits tax. Immediately following the President's announcement, the staff of the Subcommittee on Energy and Power prepared an analysis of the President's proposal, based on the details of the proposal that were available at that time. On April 26, the President announced further details with respect to the windfall profits tax proposal. Three aspects of the final proposal differ from the original proposal as analyzed by the Subcommittee staff. As a result, the staff has prepared this updated version of the original analysis.

The three aspects in which the final details of the President's tax proposal differ from the details originally used by the Subcommittee staff are:

1. The volume of released lower tier oil that is subject to the lower tier severance tax has been increased, and the lower tier tax is phased out by May, 1983 rather than February, 1983;

2. The income tax contribution to the Energy Security Fund has been increased for 1980 through 1982 but eliminated thereafter; and

3. The benchmark price for purposes of determining the severance tax on newly-discovered oil and stripper production has been set at a price that is lower than the current world oil price, so that even if OPEC prices increase only with inflation a severance tax would be paid on those two categories of oil.

SUMMARY OF RESULTS

On April 5, 1979, the President announced his intention to gradually decontrol domestic crude oil prices between June 1, 1979 and October 1, 1981 through the following mechanisms:

(1) allowing lower tier production from marginal properties to receive upper tier pricing treatment.

(2) establishing a "newly discovered oil" category that would not be subject to price controls.

(3) allowing incremental tertiary production to receive world prices with provisions for releasing additional volumes of lower tier oil to finance the projects.

(4) gradually increasing upper tier prices to world price levels.

(5) releasing volumes of lower tier oil to upper tier.

In addition, the President announced that he intended to submit to Congress a crude oil tax package that would tax a portion of the price increases permitted on certain categories of crude oil and further increases in world oil prices. Revenue from these taxes would be put into an Energy Security Fund to provide assistance to low-income families and mass transit projects and help fund certain energy projects and programs.

This analysis indicates that, when the impact is at its peak, the crude oil pricing provisions of the President's program would add one-half of one percentage point to the Consumer Price Index, whereas immediate decontrol on June 1, 1979 would add about two-thirds of a percentage point. Thus, in this respect, the impact of the President's program is about 75 percent of the impact of immediate decontrol. However, the peak impact of the President's program does not occur until 1982, whereas the impacts of immediate decontrol would hit the economy most forcefully between 1980 and 1981. With respect to consumer costs, the President's program could increase gasoline prices by over 4 cents per gallon in addition to increases already expected and could mean, at its peak impact, a transfer of nearly $13 billion annually from consumers to producers.

With respect to the President's tax proposals, the analysis indicates that, if the revenues are used in the manner indicated by the Administration, the tax proposals would not mitigate the negative macroeconomic impacts of the price increases. However, the tax proposals would reduce the profits that would accrue to the oil companies as a result of the President's program and would generate over $22 billion between 1980 and 1985 for use in the Energy Security Fund.

I. BACKGROUND

Roughly 70 percent of our Nation's crude oil production (about 6.1 million barrels per day) is now subject to price controls. However, since the United States imports about 42 percent of its total oil supply, only about one-third of all of the oil consumed in this country is subject to price controls. Domestic crude oil pricing regulations establish ceiling prices for first sales of two categories of crude oil production: lower tier oil (called "old" oil) and upper tier oil (called "new" oil).

Lower tier, or old crude oil, is the amount of crude oil produced and sold from a property each month which is equal to or less than the property's "base production control level" (BPCL). Lower tier is subject to a ceiling price equal to the highest posted field price for that oil on May 15, 1973, plus $1.35 per barrel, plus certain upward adjustments that have been allowed since February 1976 to take account of domestic inflation and to provide a production incentive.

The estimated average lower tier crude oil price ceiling for April 1979 is $5.82 per barrel. About 36 percent of domestic production (about 3.1 million barrels per day) is classified as lower tier crude oil. This represents 21 percent of the oil consumed in this country.

A property was originally defined as the right to produce domestic crude oil which arises from a lease or from a fee interest. This definition was interpreted to apply only to a surface lease. In August 1976 the definition of a property was changed so that a producer may treat as a separate property each separate and distinct producing reservoir underlying a tract provided that the reservoir is recognized as such by the appropriate state or federal regulatory authority.

The BPCL is the yardstick against which current volumes of crude oil produced and sold are measured to determine the proper price classification of such crude oil. A property's BPCL is the lesser of either (1) the average monthly amount of all crude oil produced and sold from the property in 1972, or (2) the average monthly amount of old crude oil produced and sold from the property in 1975.

Crude oil properties will experience a natural decline in production. As production from a property falls further and further below its BPCL, there is an ever diminishing likelihood that the property will ever be able to produce in excess of its BPCL. Thus, a policy was adopted of allowing adjustments to BPCL's for qualifying properties. An adjusted base production control level (ABPCL) was established as a further incentive to producers to maximize production.

As production from a property falls below its BPCL, not only is there the diminishing likelihood that the property will be able to produce in excess of its BPCL, but there is an even greater likelihood that the property will never be able to produce upper tier oil. This results from the application of the concept of "cumulative deficiency", which states that before a property can classify oil produced in excess of its BPCL as new oil, it must first eliminate any amount of oil by which the property failed to meet its BPCL in all previous months.

Upper tier or "new" crude oil is the amount of crude oil produced and sold from a property in excess of the property's BPCL (less the current cumulative deficiency, if any). New crude oil includes all crude oil produced and sold from a property that first began producing crude oil after 1972.

The ceiling price for upper tier crude oil is the highest posted field price for uncontrolled crude oil on September 30, 1975, minus $1.32 per barrel, plus certain upward adjustments that have been allowed since February 1976 to take account of domestic inflation and to provide a production incentive.

The estimated average upper tier crude oil price ceiling for April 1979 is $12.98 per barrel. About 34 percent of domestic production (about 3 million barrels per day) is classified as upper tier crude oil. This represents 20 percent of the oil consumed in this country.

There is a third category of domestic crude oil production which is not effectively subject to any price ceiling and, thus, may be sold at whatever price the market will permit. This category includes crude oil produced and sold from stripper well properties (those which have produced an average of 10 barrels or less per well per day during any preceding consecutive 12 month period commencing after December 31, 1972), the increased crude oil

produced and sold from qualifying tertiary recovery projects, Alaskan oil and crude oil produced and sold from the Naval Petroleum Reserve. About 30 percent of domestic production (about 2.7 million barrels per day) sells at world prices. This represents 17.5 percent of the oil consumed in this country.

Under the Energy Policy and Conservation Act of 1975 (P.L. 94-163), which amended the Emergency Petroleum Allocation Act (P.L. 93-159), mandatory crude oil price controls were extended for forty months to May 31, 1979. Pursuant to this legislation, after May 31, 1979 and before October 1, 1981, the President has discretionary authority to increase domestic crude oil prices beyond those permitted during the mandatory period. The crude oil pricing plan announced by the President on April 5 is scheduled to begin to be implemented on June 1. All authority to control the price of domestic crude oil expires on September 30, 1981.

II. THE PRESIDENT'S CRUDE OIL PRICING POLICY

A. Description of Pricing Provisions

The President has directed that a phased crude oil price decontrol program begin on June 1, 1979. The Department of Energy must implement his policy by either completing or undertaking administrative actions, pursuant to applicable rulemaking procedures, which will phase out price controls on domestically-produced crude oil by September 30, 1981.

The President's crude oil pricing proposal has five basic objectives: one, to provide incentives to increase domestic production; two, to bring United States domestic crude oil prices to world levels by October 1, 1981; three, to reduce oil imports; four, to moderate the inflationary effects of increases in domestic oil prices; and five, to eliminate the present system of price controls and the entitlements program (a program to equalize costs of crude oil to refineries).

The President's crude oil pricing proposal may be summarized as follows:

1. Marginal Properties

   80 percent of lower tier production from marginal properties receives the upper tier price beginning June 1, 1979 and all lower tier production from such properties receives the upper tier price beginning January 1, 1980;

2. Newly Discovered Oil

   Newly discovered oil is allowed to sell at the world price beginning June 1, 1979;

3. Tertiary Recovery

Incremental production from tertiary recovery projects receives the world price and, beginning January 1, 1980, producers who will invest in a tertiary recovery process may release specified volumes of lower tier oil to the upper tier price in order to finance that investment.

4. Upper Tier Oil

Upper tier oil prices are allowed to rise to world prices (in equal monthly increments) between January 1, 1980 and October 1, 1981.

5. Lower Tier Oil

Volumes of lower tier oil are released to the upper tier price by implementation of an imputed production decline rate of 1.5 percent monthly between January 1, 1979 and December 31, 1979. However, only volumes released after June 1, 1979 may be sold at the upper tier price. Volumes of lower tier oil are released to the upper tier price at 3 percent monthly between January 1, 1980 and October 1, 1981.

Some of the President's crude oil pricing plan has already been implemented. On April 5, 1979 the Department of Energy issued an order that details the President's proposal with respect to marginal wells and old oil.

With respect to marginal wells, the order establishes the following criteria:

- the marginal well proposal is determined on a property basis, not on an individual well basis.

- effective June 1, 1979, the BPCL for a marginal property will be equal to 20 percent of the average monthly production and sale of old crude oil from the property concerned during the last six months of calendar year 1978.

- effective January 1, 1980, the BPCL for any marginal property will be reduced to zero.

- a producing property qualifies for marginal property treatment if for the calendar year 1978 the average completion depth of all wells that produced crude oil on a property and the average daily per well production from the property meet the following limits:

Average Completion Depth	Average Daily Production
2000' but less than 4000'	20 barrels or less
4000' but less than 6000'	25 barrels or less
6000' but less than 8000'	30 barrels or less
8000' or more	35 barrels or less

With respect to lower tier, or old oil, the April 5 order establishes the following criteria:

- effective June 1, 1979, the BPCL for any property will be equal to the average monthly production and sale of old crude oil from the property during the six month period ending March 31, 1979.

- with respect to properties for which the producer elects to use as the BPCL the average monthly production and sale of crude oil during the six-month period ending March 31, 1979, the property's BPCL may be reduced by a factor of 1.5 percent per month during calendar year 1979, with the first adjustment (effective June 1, 1979) calculated as if the adjustments had become effective January 1, 1979. Accordingly, for such properties the BPCL will be reduced effective June 1, 1979 by 9 percent reflecting the 1.5 percent reduction for each month from January 1979 through June 1979.

- effective January 1, 1980, the factor by which a property's BPCL may be reduced is increased from 1.5 percent per month to 3 percent per month for all properties.

- effective June 1, 1979, cumulative deficiencies are eliminated for all properties.

On April 27, 1979 the Department of Energy issued an order detailing the President's proposal with respect to newly discovered oil.

With respect to newly discovered oil, the order establishes the following criteria:

- newly discovered crude oil is defined as crude oil sold after May 31, 1979 which was produced from: (1) an outer continental shelf lease entered into on or after January 1, 1979 (including any area that was leased prior to that date but was abandoned and subsequently leased again on or after January 1, 1979) and from which there was no production in 1978; or (2) an onshore property from which no crude oil was produced in calendar year 1978.

- the producer will determine whether crude oil production from a particular property may be sold as newly discovered crude oil.

Other aspects of the President's crude oil pricing plan have not yet been implemented by the Department of Energy. These include the proposals relating to production from tertiary recovery projects (to the extent these provisions differ from those under existing regulations), and upper tier oil. Accordingly, details with respect to these aspects of the plan are not available.

In addition to these pricing provisions, the President's crude oil pricing plan includes a proposal for a "windfall profits" tax. This tax is misnamed. The tax is an excise or severance tax which attempts to tax a portion of two separate price increases: the price increases permitted on certain categories of crude oil, and further increases in world oil prices. The details of this tax package are discussed below.

B. Economic Analysis of Pricing Provisions

The following analysis compares the economic effects of the crude oil pricing provisions of the President's program to the alternative of a continuation of the present price control policy. It includes a comparison of immediate decontrol on June 1, 1979 with a continuation of the present policy. Thus, the economic effects of the President's program can be measured against those of a consumer-oriented policy (a continuation of the present system) and those of a producer-oriented policy (immediate decontrol).

To separate the effects of the pricing provisions from those of any crude oil taxes that might be enacted by the Congress, the pricing provisions have been analyzed under the assumption that no such taxes will be enacted. An analysis of the economic effects of the crude oil tax package proposed by the President is presented in a subsequent section.

Assumptions

The base case against which the President's program and immediate decontrol are measured assumes that lower tier and upper tier prices will rise only with inflation through 1985. Potential administrative actions with respect to such subjects as newly discovered oil and marginal properties have not been included in the base case. This is comparable to a continuation of the Administration's present pricing policy (although such a continuation beyond September 1981 would require a legislative extension of price control authority).

In all cases, the world price of crude oil is assumed to be the price of Saudi Arabian light crude oil at point of entry into the United States, based on official OPEC prices plus an average surcharge of $1 per barrel. This price is estimated to be $17.40 per barrel and is assumed to increase only with inflation through 1985. To the extent that surcharges averaging over $1 per barrel are imposed, this price would be increased. (The effect of such an increase is analyzed in a subsequent section of this memorandum.) In analyzing both the President's program and immediate decontrol, the wellhead price of any domestic crude oil no longer subject to price controls is assumed to rise to the world price as estimated above, less the transportation cost incurred between the wellhead and the refinery. (That transportation cost has recently averaged about $.50 per barrel.) Thus, the wellhead price

for decontrolled domestic crude oil is assumed to rise to $16.90 per barrel and then to increase with inflation through 1985.

Furthermore, with regard to volume estimates, no supply response has been assumed for several reasons. First, it is extremely difficult to estimate what the supply response attributable to the higher prices is likely to be. Supply estimates for decontrol vary widely. Second, even if a supply response is assumed, it would have the effect of replacing a barrel of imported oil with a barrel of comparably priced domestic oil. Such a replacement would not affect consumer costs, although it would reduce the United States balance of payments deficit, improve security of supply, and keep money within the United States economy. However, these effects are very difficult to quantify and are beyond the scope of this analysis. Thirdly, this assumption produces a conservative or "worst case" analysis. A brief discussion of how the results would change as a result of a supply response is presented in a subsequent sectrion.

In estimating lower tier volumes (including marginal properties) between now and 1985, an average annual decline rate of 15 percent was assumed. This was based on the actual decline rate in lower tier production that has been experienced over the last several years. Upper tier production was assumed to decline at 3 percent per year. However, under the President's program, some of what would otherwise be upper tier production will instead be classified as newly-discovered oil and sold at world prices. It is difficult to determine the exact amount of oil that would have received upper tier prices but will instead receive world prices. The estimates used in this analysis are based on Department of Energy estimates for newly-discovered oil.

The analysis of immediate decontrol assumes that on June 1, 1979 the wellhead price of all domestic crude oil that is currently constrained by price controls will rise immediately to $16.90 per barrel.

The analysis of the President's program assumes that prices will increase to the maximum allowable levels as described above.

Increased Producer Revenues

Table 1 sets forth the increase in pre-tax producer revenues that would result from the President's program and from immediate decontrol on June 1, 1979.

Memorandum

TABLE 1

INCREASED PRE-TAX PRODUCER REVENUES

(Billions of 1979 Dollars)

Source of Increase	1979	1980	1981	1982	1983	1984	1985
			President's Program				
Newly-Discovered Oil	0.0	0.2	0.3	0.5	0.8	1.1	1.6
Marginal Properties	0.9	1.6	1.4	1.1	1.0	0.8	0.7
Released Lower Tier Volumes	0.1	1.3	3.1	3.4	2.9	2.5	2.1
Increased Upper Tier Prices	0.0	1.5	4.7	5.5	4.6	3.9	3.1
Total	1.0	4.6	9.5	10.5	9.3	8.3	7.5
			Immediate Decontrol				
Total	8.8	13.3	11.8	10.5	9.3	8.3	7.5
			Comparison				
President's Program As Percent of Immediate Decontrol	11%	35%	80%	100%	100%	100%	100%

A comparison of the producer revenue estimates given in Table 1 indicates that during 1979 and 1980 the President's program would be closer to the alternative of a continuation of the present pricing policy than it would be to immediate decontrol. However, by 1981 producer revenues under the President's program would represent nearly 80 percent of those under immediate decontrol and beyond 1981, when the authority for any control of crude oil prices will have expired, producer revenues under the two policies would be identical.

Increased Consumer Costs

The increase in consumer costs that would result from the President's program depends upon how much of the increase in producer revenues would be passed through to the consumer through higher petroleum product prices. If it is assumed that all of the increase is passed through to the consumer, then the aggregate increase in consumer costs will be identical to the increase in pre-tax producer revenues; i.e. there would be a direct transfer of that amount of money from consumers to producers. This analysis assumes that there will be a full dollar-for-dollar passthrough by refiners of crude oil price increases. Many analysts believe that the passthrough could actually be considerably less than 100 percent because the competitive price pressures exerted by imported petroleum products would not allow refiners to fully pass cost increases through to certain products, such as residual fuel oil. The Administration has generally assumed that two-thirds of the crude oil price increases would be passed through to consumers. The consumer cost impacts (and thus the macroeconomic impacts) of any crude oil pricing policy option would be approximately proportional to the amount of passthrough assumed. Hence, if two-thirds passthrough is assumed, the economic impacts would be about two-thirds of those identified in this memorandum.

Table 2 sets forth consumer cost estimates for both the President's plan and immediate decontrol under the assumption of full passthrough. Estimates are given for the aggregate increases, the increased price for the average gallon of product, and the increased annual cost for the average household. These increases represent increases in the given year relative to what the amounts and prices would have been under the base case assumptions. They do not represent increases relative to the previous year. The increases given in nominal dollars assume a 7 percent per year inflation rate.

Memorandum

TABLE 2

INCREASED CONSUMER COSTS

	1979	1980	1981	1982	1983	1984	1985
			President's Program				
Aggregate Amounts (79$, Billions)	1.0	4.6	9.5	10.5	9.3	8.3	7.5
Aggregate Amounts (Nominal $ Billions)	1.0	4.9	10.9	12.8	12.2	11.7	11.2
Ave. Increase In Product Prices (cents/gal, Nominal)	.3	1.7	3.6	4.2	4.0	3.7	3.5
Ave. Annual Increase Per Household (Nominal $)	12.	60.	133.	156.	149.	143.	137.
			Immediate Decontrol				
Aggregate Amounts (79$, Billions)	8.8	13.3	11.8	10.5	9.3	8.3	7.5
Aggregate Amounts (Nominal $, Billions)	8.8	14.3	13.5	12.8	12.2	11.7	11.2
Ave. Increase In Product Prices (cents/gal, Nominal)	3.0	4.8	4.5	4.2	4.0	3.7	3.5
Ave. Annual Increase per Household (Nominal $)	107.	174.	165.	156.	149.	143.	137.

	1979	1980	1981	1982	1983	1984	1985
			Comparison				
President's Program as % of Immediate Decontrol	11%	35%	80%	100%	100%	100%	100%

Table 2 indicates that, at its peak impact, the President's program could result in a transfer of nearly $13 billion from consumers to producers, depending upon the amount of passthrough assumed. As a result, gasoline prices are estimated to increase by almost 4 cents per gallon by 1981. This increase would be in addition to increases expected to occur anyway as a result of inflation and the gasoline tilt regulations. Some analysts estimate that the increase attributable to inflation and the gasoline tilt will be about 15 cents per gallon by 1981. Thus, the combination of price increases from the President's program and those from inflation and the tilt could increase gasoline prices by 1981 by about 20 cents per gallon over present levels.

Macroeconomic Impacts

The Chase Econometric Model was used to forecast the macroeconomic impacts of the crude oil pricing provisions of the President's program and those of immediate decontrol on June 1, 1979. The forecasted impacts are based on the producer revenue and consumer cost increases given above. The model forecasts the effect of these increases on the economy is measured by changes in the Consumer Price Index (CPI), the Gross National Product (GNP) and the unemployment rate. The changes in the CPI used to measure inflationary impacts represent a cumulative measure of the increase in inflation since 1979 as opposed to an annual rate of increase in inflation from the previous year. Thus, for any given year, the change in the CPI that results from the President's program or from immediate decontrol represents the percentage by which prices are higher under the policy than they would have been under the base case.

Table 3 sets forth the macroeconomic impacts of the crude oil pricing provisions of the President's program and of immediate decontrol. Those impacts are also presented graphically in Figures 1-3.

TABLE 3

MACROECONOMIC IMPACTS

	1979	1980	1981	1982	1983	1984	1985
President's Program							
% Difference in CPI	+.03	+.17	+.41	+.50	+.46	+.38	+.27
Difference in GNP, (Billions 1972 $)	-0.4	-1.7	-4.3	-5.8	-5.1	-4.4	-4.4
% Point Difference in Unemployment Rate	+.01	+.05	+.12	+.17	+.15	+.12	+.11
Immediate Decontrol							
% Difference in CPI	+.39	+.67	+.67	+.60	+.49	+.35	+.21
Difference in GNP (Billions 1972 $)	-3.0	-6.6	-7.4	-6.0	-5.1	-5.3	-5.3
% Point Difference in Unemployment Rate	+.07	+.19	+.23	+.19	+.15	+.13	+.13

Table 3 indicates that, at its peak impact, the President's program would add one-half of one percentage point to the Consumer Price Index. Immediate decontrol would add about two-thirds of a percentage point to the CPI. Thus, in this respect, the impact of the President's program is about 75 percent of the impact of immediate decontrol. However, the peak impact of the President's program does not occur until 1982, whereas the impacts of immediate decontrol hit the economy most forcefully between 1980 and 1981.

III. THE PRESIDENT'S CRUDE OIL TAX PROPOSALS

A. Description of Tax Proposals

The President has accompanied his crude oil pricing policy with a proposal for a package of taxes to be imposed on a portion of the additional revenues that would accrue to producers as a result of the price increases allowed under the crude oil pricing provisions. The tax package proposed by the President is composed of three separate taxes:

1. A tax of 50 percent of producer revenues from the sale of uncontrolled oil which are attributable to any future OPEC price increases in excess of inflation.

2. A severance tax of 50 percent of producer revenues resulting from upper tier price increases in excess of inflation.

3. A severance tax of 50 percent of producer revenues from the sale of a portion of the volume of lower tier oil that is released to the upper tier category.

The first tax would be triggered if OPEC raised its price above $16.00 per barrel (as of October, 1979) adjusted for inflation and would be equal to 50 percent of the difference between that adjusted base price and the world price at the time of application of the tax. This tax is intended to be permanent and would apply to newly-discovered oil, production from stripper well properties and incremental tertiary production. In addition, beyond October 1, 1981, it would effectively apply to lower tier and upper tier oil since that production would then be decontrolled, but it is assumed that for these volumes the OPEC tax woud be incorporated into the severance tax on upper tier price increases that would already be applicable. The OPEC tax would not, however, apply to oil production from the Alaskan-North Slope.

The second tax is equal to 50 percent of the difference between the actual price allowed for upper tier oil and today's upper tier ceiling price adjusted for inflation. This tax would apply to any crude oil receiving upper tier pricing treatment (including production from marginal properties and released lower tier oil) and would phase out between November, 1986 and December, 1990.

The third tax is equal to 50 percent of the difference between today's lower and upper tier prices, both adjusted for inflation. However, this tax applies to only a portion of the lower tier oil that is released to upper tier. First, production from marginal properties and lower tier oil released to provide up-front money for tertiary recovery projects are not subject to the tax. Second, only a portion of the remaining released oil is subject to the tax. For purposes of releasing volumes to upper tier levels, each property is given a linear imputed decline rate of 3 percent per month, as described above. For purposes of determining the amount of released lower tier oil that is subject to this lower tier tax, each property is given a linear decline rate of 2 percent per month. This tax applies only to the released oil produced between the 3 percent per month decline rate and the 2 percent per month decline rate. All old oil produced in excess of a 2 percent per month decline rate is not subject to the tax. Thus if, for example, production from a property is actually declining

at a rate of only 1 percent per month (12% per year), only half of the old oil released on that property would be subject to this tax. Because the 2 percent monthly decline rate reaches zero by May 1983, and production in excess of that level is not subject to this tax, the tax would phase out of its own accord.

The President's proposal includes provisions that place the revenue from these three taxes into an "Energy Security Fund". This fund would be used to provide assistance to low-income families, increase expenditures for mass transit and assist several energy projects and programs through direct funding or tax credits.

In addition to revenue from the three taxes listed above, the increases in income taxes that would result from the increased revenues through 1982 would also be placed in the fund.

B. Economic Analysis of Tax Proposals

The following analysis compares the economic impacts of the President's crude oil pricing policy with and without enactment of the tax proposals.

The assumptions that were described in the previous section with regard to the pricing provisions apply here as well.

With respect to the tax proposals, the following assumptions were made. The taxes and provisions for the Energy Security Fund are assumed to be effective January 1, 1980. The Energy Security Fund is assumed to be apportioned to low-income families and mass transit in the amounts specified by the Administration, with the remainder being allocated to energy projects and programs. A federal tax rate of 40 percent was assumed in estimating income taxes paid on increased producer revenues.

Increased After-Tax Producer Revenues

The increased producer revenue estimates for the President's program that were presented in the previous section were calculated without regard to the income taxes that would have to be paid on that revenue and without regard to any severance tax payments that would be due if the President's crude oil tax proposals were enacted by the Congress. Table 4 sets forth the net increase in producer revenues (after subtraction of income tax and severance tax payments) that would result from the President's program.

TABLE 4

INCREASES IN AFTER-TAX PRODUCER REVENUES

PRESIDENT'S PROGRAM

(Billions of 1979 Dollars)

Source of Increase	1979	1980	1981	1982	1983	1984	1985
Newly-Discovered Oil							
Pre-Tax Increase	0.0	0.2	0.3	0.5	0.8	1.1	1.6
Less:							
Severance Tax	-	0.0	0.0	0.1	0.1	0.1	0.2
Income Tax	0.0	0.1	0.1	0.2	0.3	0.4	0.6
Net Increase	0.0	0.1	0.2	0.2	0.4	0.6	0.8
Marginal Properties							
Pre-Tax Increase	0.9	1.6	1.4	1.1	1.0	0.8	0.7
Less:							
Severance Tax	-	-	-	-	-	-	-
Income Tax	0.4	0.6	0.6	0.4	0.4	0.3	0.3
Net Increase	0.5	1.0	0.8	0.7	0.6	0.5	0.4
Released Lower Tier Volumes							
Pre-Tax Increase	0.1	1.3	3.1	3.4	2.9	2.5	2.1
Less:							
Severance Tax	0.0	0.2	0.7	0.7	0.1	0.0	0.0
Income Tax	0.0	0.4	1.0	1.1	1.1	1.0	0.8
Net Increase	0.1	0.7	1.4	1.6	1.7	1.5	1.3

Memorandum

	1979	1980	1981	1982	1983	1984	1985
Increased Upper Tier Prices							
Pre-Tax Increase	0.0	1.5	4.7	5.5	4.6	3.9	3.1
Less:							
Severance Tax	0.0	0.8	2.4	2.7	2.3	2.0	1.6
Income Tax	0.0	0.3	1.0	1.1	0.9	0.8	0.6
Net Increase	0.0	0.4	1.3	1.7	1.4	1.1	0.9
Stripper Oil							
Pre-Tax Increase	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Less:							
Severance Tax	0.0	0.2	0.2	0.2	0.2	0.2	0.2
Income Tax	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income	0.0	0.2	0.2	0.2	0.2	0.2	0.2
Total							
Pre-Tax Increase	1.0	4.6	9.5	10.5	9.3	8.3	7.5
Less:							
Severance Tax	0.0	1.2	3.3	3.7	2.7	2.3	2.0
Income Tax	0.4	1.4	2.7	2.8	2.7	2.5	2.3
Net Increase	0.6	2.0	3.5	4.0	3.9	3.5	3.2

Income tax payments in Table 4 are simply equal to 40 percent of the pre-tax increase in producer revenues less the severance tax payment. The severance tax is subtracted from the pre-tax increase before applying the income tax rate because the severance tax payments would be deductible from taxable income. In the case of upper tier price increases, the severance tax payment is equal to exactly 50 percent of the increase in pre-tax revenue since the tax rate is 50 percent and applies to all production receiving the upper tier price. In the case of released lower tier volumes, however, the severance tax payment is far less than 50 percent of the total pre-tax revenue increase since the severance tax only applies to a portion of the lower tier oil that is released.

The combined effect of the severance tax and income tax payments is to reduce producer profits to anywhere from 37 percent to 60 percent of their pre-tax levels, depending upon the amount of severance tax.

Energy Security Fund Revenue

Although all of the revenue from the severance tax would be placed in the Energy Security Fund, only that portion of the increase in income tax that results from revenue that would also be subject to the severance tax would be included in the fund. For example, income tax paid on revenue from the sale of released lower tier oil that was not subject to the severance tax (i.e., that in excess of the 2 percent monthly decline rate) would not be included. Thus, the total amount of revenue available for the Energy Security Fund is less than the total increase in taxes paid. Table 5 sets forth the amount of revenue that would be available for the fund between now and 1985.

TABLE 5

ENERGY SECURITY FUND REVENUES

(Billions of 1979 Dollars)

Source of Revenue	1979	1980	1981	1982	1983	1984	1985
Severance Tax	0.0	1.3	3.4	3.7.	2.7	2.3	2.0
Income Tax	0.0	1.4	2.6	2.8	0.0	0.0	0.0
Total	0.0	2.7	6.0	6.5	2.7	2.3	2.0

Table 5 indicates that between 1980 and 1985, about $22 billion would be available for the Energy Security Fund.

Macroeconomic Impacts

The Chase Econometric model was used in the same manner described above to forecast the macroeconomic effects of the President's crude oil pricing policy including the severance tax proposals. Table 6 compares those impacts to the impacts of the President's program without any crude oil taxes. Those impacts are also presented graphically in Figures 4-6.

TABLE 6

MACROECONOMIC IMPACTS

	1979	1980	1981	1982	1983	1984	1985
President's Program: Without Tax							
% difference in CPI	+.03	+.17	+.41	+.50	+.46	+.38	+.27
Difference in GNP, (Billions 1972 $)	-0.4	-1.7	-4.3	-5.8	-5.1	-4.4	-4.4
% Point Difference in Unemployment Rate	+.01	+.05	+.12	+.17	+.15	+.12	+.11
President's Program: With Tax							
% Difference In CPI	+.03	+.16	+.42	+.52	+.50	+.41	+.30
Difference In GNP (Billions 1972 $)	-0.4	-1.5	-4.3	-6.4	-6.3	-5.5	-4.8
% Point Difference in Unemployment Rate	+.01	+.05	+.12	+.19	+.20	+.17	+.13

Table 6 indicates that the crude oil tax package combined with the Energy Security Fund does not reduce the inflationary impacts of the crude oil price increases. In addition, it does not mitigate the short-term recesssionary effects of the price increases and tends to exacerbate slightly the longer term recessionary impacts.

The macroeconmic impacts of the tax depend on the disposition of the tax. Whenever the government taxes producers there will be an automatic recessionary impact to the economy unless the funds are redistributed back into the economy. Rebating these funds to consumers more than compensates for the short-term recessionary impact of the tax. However, under the President's program, only a small portion of the funds is rebated to consumers. The major amount of the revenue goes to subsidize mass transit and energy projects. This investment has the same short-term economic effects that would result if the producers were to retain the tax revenues. However, the slightly increased long-term recessionary effects shown by the model result because the returns on investment in private

projects are higher than those for government projects. This occurs because the tax funds would be invested in projects that are not sufficiently economic to warrant private industry investment. Accordingly, because these government investments would produce a lower rate of return, the long-term recessionary impacts are slightly exacerbated.

The model is incapable of analyzing the merits of specific uses of increased revenues resulting from the tax. Although the model can indicate the general macroeconomic effects of the tax and its redistribution through increased government subsidies, grants, and transfer payments, the model cannot decide whether investment in specific alternate energy sources is better or worse than permitting the oil companies to retain the revenues.

IV. THE EFFECT OF FURTHER OPEC PRICE INCREASES

The above analyses assumed that the world price of oil was currently $17.40 per barrel, including an average surcharge of $1 per barrel, and that this price would increase only with inflation through 1985. However, to the extent that OPEC prices were to increase beyond levels necessary to compensate for inflation, both the cost of the President's program and the tax revenues generated by the President's package of tax proposals would be increased. The following analysis indicates the impact of each additional $1 increase in OPEC prices above the base case assumptions on the costs and the tax revenues resulting from the President's proposal. The additional increase is assumed to be effective January 1, 1980.

Increase in Costs

Under the President's program, the price of OPEC oil affects (1) the price of those categories of domestic oil that are decontrolled under the program but would not have been under the base case, and (2) the rate at which upper tier prices increase between 1980 and 1981. Each additional $1 per barrel increase in OPEC prices above inflation would increase the cost of the President's program, as measured by increased pre-tax producer revenues and increased consumer costs, by the following amounts (in billions of 1979 dollars):

1979	1980	1981	1982	1983	1984	1985
0	.4	1.3	1.6	1.5	1.4	1.3

Increase in Tax Revenues

Further increases in OPEC prices would increase the tax revenues generated by the President's tax proposals in three ways:

(1) The amount of severance tax applicable to volumes of upper tier oil (including production from marginal properties and lower tier oil that had been "released" to upper tier status) would increase as the difference between the world price and the current upper tier price adjusted only for inflation increased;

(2) The amount of severance tax paid on newly-discovered oil, stripper well production and incremental tertiary production would increase as the difference between the world price and the $16.00 base price adjusted only for inflation increased; and

(3) Income taxes would increase as pre-tax producer revenues increased.

As described above, the increases in the tax revenues would be placed in an Energy Security Fund for use in providing assistance to low income households and mass transit, and for funding of energy projects and programs. Table 7 sets forth the increases in the Energy Security Fund revenues that would result from each additional $1 increase in OPEC prices in excess of inflation.

TABLE 7

ENERGY SECURITY FUND REVENUE INCREASE FOR EACH

$1 INCREASE IN OPEC PRICES

(Billions of 1979 Dollars)

Source of Increase	1979	1980	1981	1982	1983	1984	1985
Severance Tax	-	0.2	0.6	0.7	0.6	0.5	0.4
OPEC Tax	-	0.3	0.3	0.3	0.3	0.4	0.5
Income Tax	-	0.2	0.3	0.4	0.0	0.0	0.0
Total	-	0.7	1.2	1.4	0.9	0.9	0.9

V. EFFECT OF SUPPLY RESPONSE

The numbers presented in the above tables do not include revenue generated as a result of any supply response attributable to the President's proposal. To the extent that the higher prices allowed under decontrol would result in additional crude oil production, the above estimates of producer revenues and Energy Security Fund revenue would be increased.

For each 100,000 barrels per day of supply response sold at world prices,

1. pre-tax producer revenues would increase by about $600 million per year;

2. the revenue available for the Energy Security Fund would increase by $65 million per year between 1980 and 1982 (when income tax is included), and $18 million per year thereafter; and

3. the additional revenue available to the Energy Security Fund as a result of each one dollar increase in OPEC prices would increase by $25 million per year between 1980 and 1982, and $18 million per year thereafter.

It is important to note that producer revenues resulting from a supply response have a different origin than the other producer revenues resulting from the President's proposal. By definition a supply response is that production of crude oil which would not have been produced without the President's proposals. The other producer revenues result from price increases on crude oil which would have been produced anyway. Therefore, the pre-tax producer revenues resulting from a supply response should not have the "windfall profit" connotation of the other producer revenues resulting from the President's proposals.

Figure 1

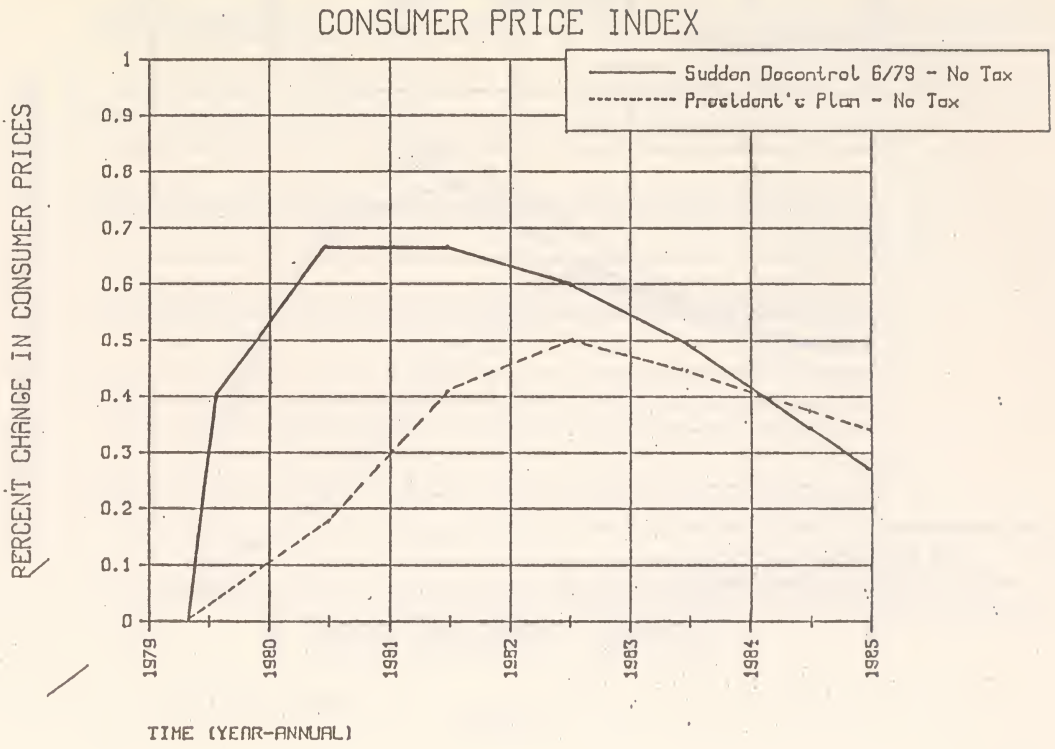

CONSUMER PRICE INDEX
Sudden Decontrol 6/79 - No Tax
President's Plan - No Tax
PERCENT CHANGE IN CONSUMER PRICES
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
1979
1980
1981
1982
1983
1984
1985
TIME (YEAR-ANNUAL)

Figure 2

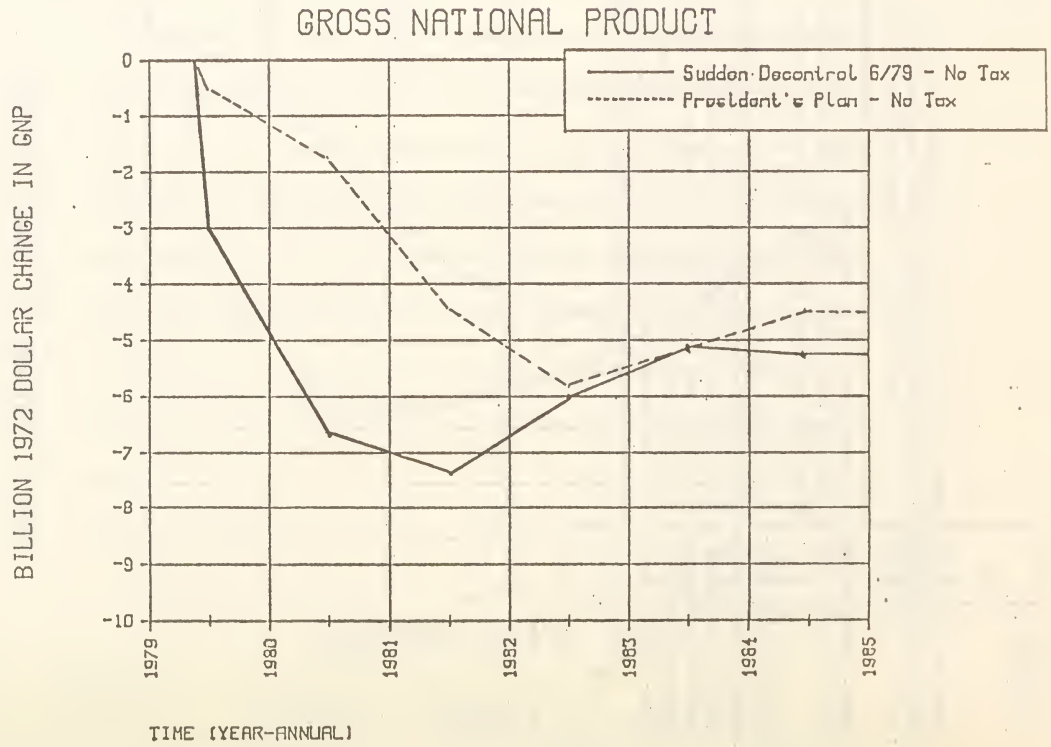

GROSS NATIONAL PRODUCT
Sudden Decontrol 6/79 - No Tax
President's Plan - No Tax
BILLION 1972 DOLLAR CHANGE IN GNP
0
-1
-2
-3
-4
-5
-6
-7
-8
-9
-10
1979
1980
1981
1982
1983
1984
1985
TIME (YEAR-ANNUAL)

Figure 3

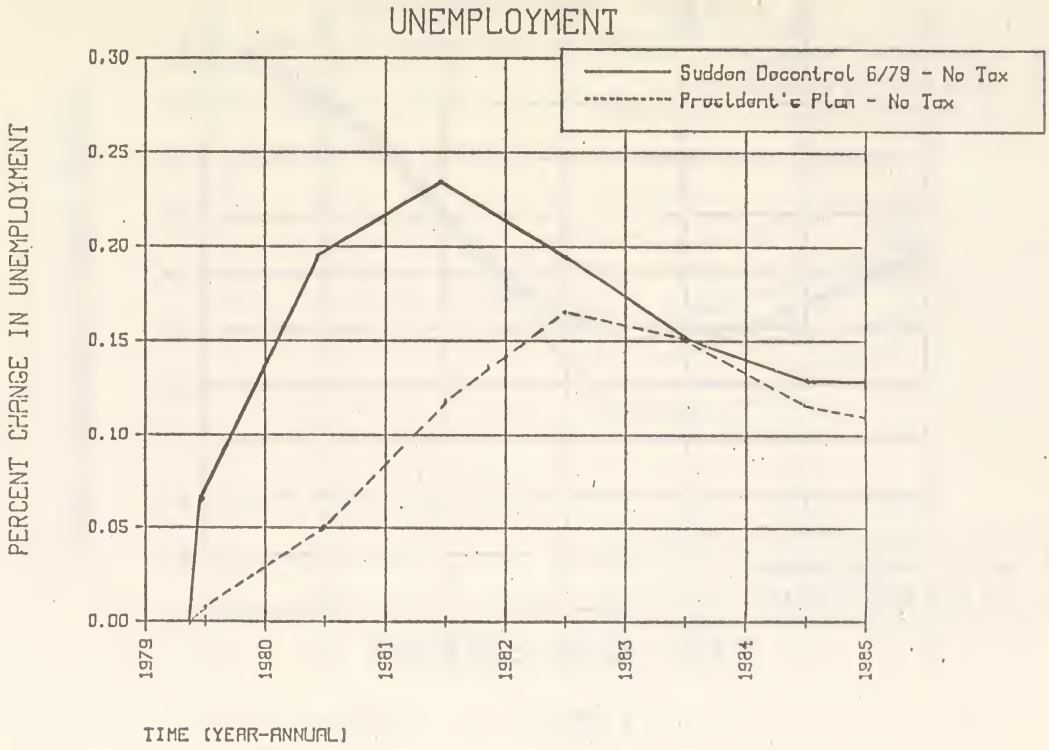

UNEMPLOYMENT
Sudden Decontrol 6/79 - No Tax
President's Plan - No Tax
PERCENT CHANGE IN UNEMPLOYMENT
0.30
0.25
0.20
0.15
0.10
0.05
0.00
1979
1980
1981
1982
1983
1984
1985
TIME (YEAR-ANNUAL)

Figure 4

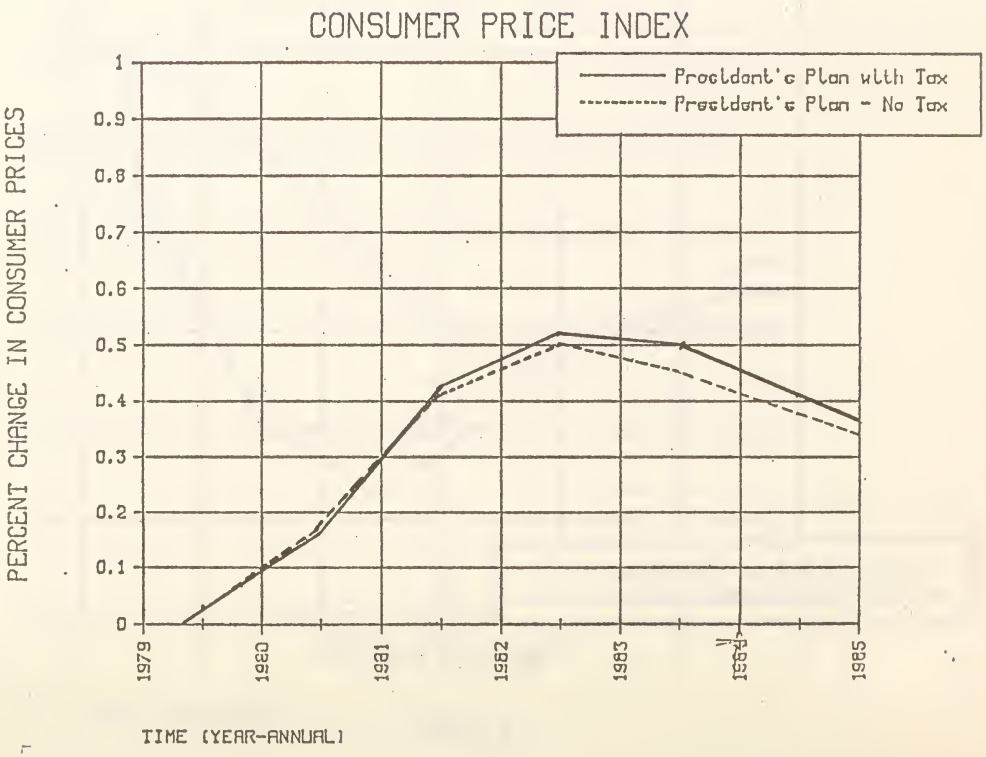

CONSUMER PRICE INDEX
President's Plan with Tax
President's Plan - No Tax
PERCENT CHANGE IN CONSUMER PRICES
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
1979
1980
1981
1982
1983
1984
1985
TIME (YEAR-ANNUAL)

Figure 5

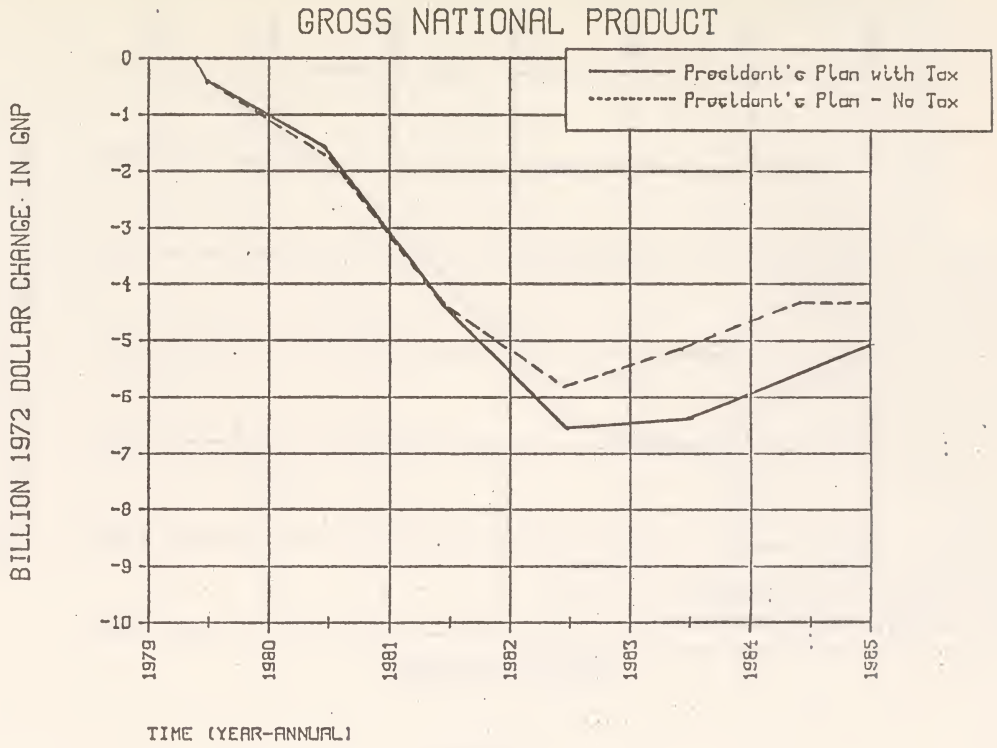
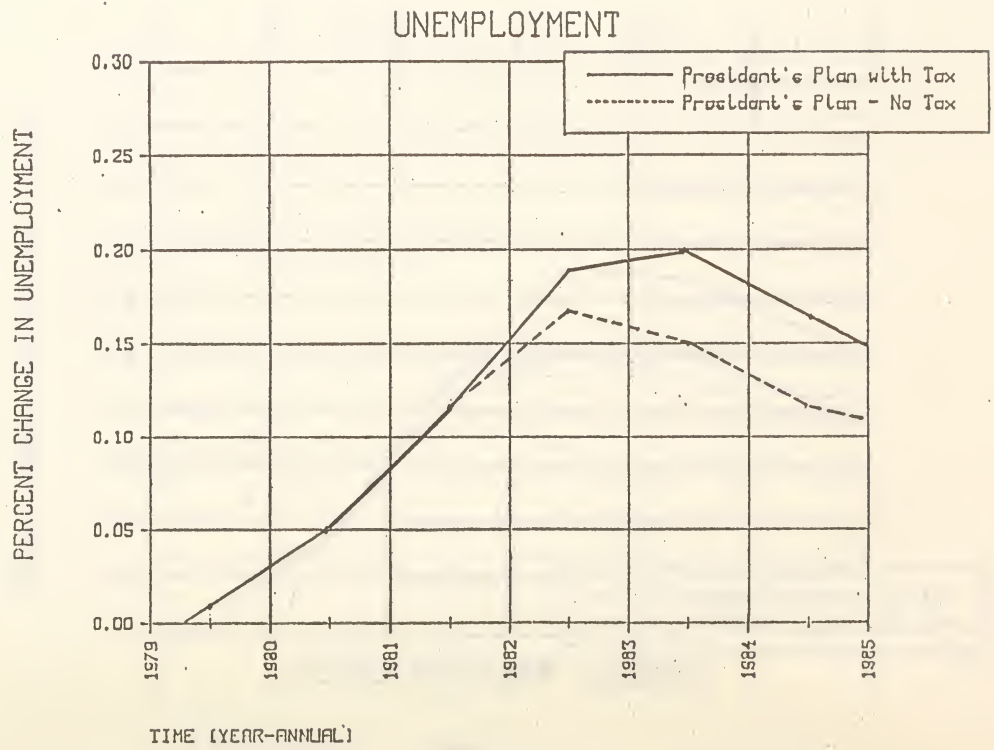

GROSS NATIONAL PRODUCT
Presidents Plan with Tax
Presidents Plan - No Tax
BILLION 1972 DOLLAR CHANGE IN GNP
0
-1
-2
-3
-4
-5
-6
-7
-8
-9
-10
1979
1980
1981
1982
1983
1984
1985
TIME (YEAR-ANNUAL)

Figure 6


UNEMPLOYMENT
President's Plan with Tax
President's Plan - No Tax
PERCENT CHANGE IN UNEMPLOYMENT
0.30
0.25
0.20
0.15
0.10
0.05
0.00
1979
1980
1981
1982
1983
1984
1985
TIME (YEAR-ANNUAL)

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3 1262 09111 6136